



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,585	11/30/2001	Yibing Yan	COR 148	4308

26161 7590 05/20/2003

FISH & RICHARDSON PC
225 FRANKLIN ST
BOSTON, MA 02110

EXAMINER

TELLER, ROY R

ART UNIT

PAPER NUMBER

1654

DATE MAILED: 05/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/002,585

Applicant(s)

YAN ET AL.

Examiner

Roy Teller

Art Unit

1654

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) 35-49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 1654

DETAILED ACTION

This office action is in response to Paper No: 6, received 4/3/0/03, in which applicant elected group I, claims 1-34 without traverse. Applicant also elected the metalloproteinase inhibitor, TIMP-2, with traverse. Applicant contends that this is a species election and not a patentably distinct species. Examiner agrees and will examine TIMP-2 as a species election.

Claims 1-34 will be examined.

Information Disclosure Statement

The information disclosure statement filed 2/6/03 (Paper No: 4) is acknowledged. A signed copy is attached hereto.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 5, 6, 14, 17, 18, 32, and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2 and 14 recite "...by at least about..." this is vague and indefinite because it is not clear what range of percentages is being claimed. While the instant specification does discuss

Art Unit: 1654

the preferred percentages of inhibition of soluble CD154 from a platelet (page 37, lines 1-5), the working examples do not indicate a percent of inhibition of soluble CD154 from a platelet.

Claims 5, 6, 17, 18, 32, and 33 recite "...at least one additional agent...", this is vague and indefinite because it sounds as if more than one agent can be added to the claims. While the instant specification discusses aspirin as an agent of use in certain instances of inflammation (page 9, line 24- page 10, line 4), it does not appear that aspirin is envisioned for use in the instant invention, nor are additional agents discussed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stetler-Stevenson (USPN 5,595,885) and the Millennium product data sheet in view of Shafer (USPN 6,232,315).

The claimed invention is drawn to a method of treatment of thrombosis and inflammatory disease in which tissue inhibitor of metalloprotease-2 (TIMP-2) and eptifibatide are administered to a subject. The effective treatment inhibits the release of soluble CD154 (sCD154) from a platelet by at least 10%-90%.

Art Unit: 1654

Stetler-Stevenson teaches that metalloproteinases play an important role in disease processes characterized by the inappropriate destruction of the extracellular matrix. The diseases include inflammatory processes, see column 2, lines 28-31. Stetler-Stevenson discloses a novel metalloproteinase inhibitor, TIMP-2, see column 3, lines 58-61. This product is licensed to CALBIOCHEM®, catalog number PF021, see CALBIOCHEM® product data sheet. Stetler-Stevenson does not teach a method of treatment for thrombosis.

The Millennium product data sheet discloses INTEGRILIN® (eptifibatide) works by preventing the clumping together of blood cells known as platelets, see second paragraph. Millennium does not teach a method of treatment for inflammatory disease.

Shafer teaches a method for treating inflammatory disease in a patient which comprises treating a patient with a combination comprising a thrombin inhibitor and a NSAID, see column 2, lines 20-23. Shafer discloses that thrombin inhibitors, which inhibit formation of blood clots, are effective for inhibiting inflammation, see column 2, lines 1-3.

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to have combined the TIMP-2 of Stetler-Stevenson with the eptifibatide of Millennium in order to treat inflammatory disease and thrombosis, as Shafer has done with a combination of an anti-inflammatory and thrombin inhibitor. While Stetler-Stevenson does not specifically teach that TIMP-2 inhibits the release of soluble CD154, absent some evidence to the contrary, the TIMP-2 disclosed by Stetler-Stevenson would inherently possess this property.

Conclusion

Art Unit: 1654

All claims are rejected .


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roy Teller whose telephone number is (703) 305-4243. The examiner can normally be reached on Monday-Friday from 5:30 am to 2:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brenda Brumback, can be reached on (703) 306-3220. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3014.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

RT
1654
5/16/03

RT


BRENDA BRUMBACK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600